

WHAT IS CLAIMED IS:

1. An appliance leakage current interrupter (ALCI) for interrupting the flow of current through a pair of lines extending between a source of power and a load, said appliance leakage current interrupter comprising:

(a). a circuit breaker having a pair of normally closed switches, one switch being located in each of said lines between the source of power and the load;

(b). a relay circuit for selectively opening the pair of normally closed switches;

(c). a fault detection circuit for detecting the presence of a ground fault condition in said pair of lines and for causing said relay circuit to open said circuit breaker when said fault condition detected exceeds a predetermined value, said fault detection circuit comprising an integrated circuit chip and a transformer; and

(d). a single-sided circuit board having a first side and a second side, the second side having a pattern of conductive paths;

(e). wherein said integrated circuit chip is mounted on the second side of said single-sided circuit board.

2. The appliance leakage current interrupter as claimed in claim 1 wherein said transformer includes a common core having three laminated layers, a primary winding and a secondary winding, said pair of lines serving as the primary winding for the transformer, each of said pair of lines being wrapped twice around the core of said transformer.



**Abstract**

9. The appliance leakage current interrupter as claimed in claim 8 wherein said relay circuit comprises a solenoid for selectively opening the pair of switches and a rectifier for energizing the solenoid upon detection of a ground fault condition.

10. The appliance leakage current interrupter as claimed in claim 9 further comprising a reset assembly for resetting said appliance leakage current interrupter after detection of a ground fault condition, said reset assembly being capable of pivoting each of the contact arms out of contact from its associated bracket arm to create an open connection, thereby preventing power from being supplied to said appliance leakage current interrupter.

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